

1 BT03 Rec'd PCT/PTO 0.2 FEB/2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

AVERBUCH et al

Serial No.: 10/518,766

Filed: 21 DEC 2004

For: Method Of Transmitting Data Using
Space Time Block Codes

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Group Art Unit:

Attorney Docket No.: 27/243

Examiner:

Commissioner of Patents and Trademarks
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

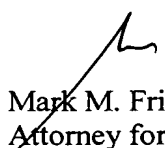
Sir:

Enclosed is PTO Form 1449 which lists citations which may be material to the patentability of the above-identified application.

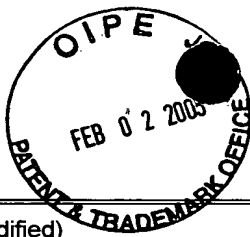
These are being submitted in compliance with the duty of disclosure defined in 37 C.F.R. 1.56. The Examiner is requested to make these citations of official record in this application.

This Information Disclosure Statement Under 37 C.F.R. 1.56 is not to be construed as a representation that a search has been made, that additional matter which is material to the examination of this application does not exist, or that any one or more of these citations constitutes prior art.

Respectfully submitted,


Mark M. Friedman
Attorney for Applicant
Registration No. 33,883

Date: January 30, 2005



Sheet 1 of 2

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------|-------|-------------------------------|----------------|
| Form PTO-1449 (Modified) INFORMATION DISCLOSURE CITATION IN AN APPLICATION <i>(USE SEVERAL SHEETS IF NECESSARY)</i> | | | | Atty. Docket No. 27/243 | | Application No. 10/518,766 | |
| | | | | Applicant: AVERBUCH ET AL | | | |
| | | | | Filing Date: 21 DEC 2004 | | Group Art Unit: | |
| | | | | | | | |
| | EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
| AA | | 6,185,258 | Feb 01 | Alamouti | | | |
| AB | | | | | | | |
| | | | | | | | |
| | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
| | | | | | | | YES NO |
| AC | | | | | | | |
| OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) | | | | | | | |
| AD | | "NONCOMMUTATIVE RINGS" Herstein. The Carus Mathematical Monographs, Number Fifteen | | | | | |
| AE | | "A Simple Transmit Diversity Technique For Wireless Communications" Alamouti; IEEE Journal on Select Areas In Communications Vol 16 No.8 October 1998 | | | | | |
| AF | | "A Differential Detection Scheme for Transmit Diversity" Tarokh; IEEE Journal on Select Areas In Communications Vol 18 No.7 July 2000 | | | | | |
| AG | | "Space-Time codes for High Data Rate Wireless Communication: Performance Criterion and Code Construction" Tarokh et al; IEEE Transactions on Information Theory Vol 44 No.2 July 1998 | | | | | |
| AH | | "Space Time Block codes from orthogonal designs" Tarokh et al; IEEE Trans Info theory Vol 45, No.5 pp1456-1467, July 1999 | | | | | |
| AI | | Hochwald et al; "Unitary Space Time modulation for Multiple Antenna Communications in Rayleigh Flat Fading" IEEE Transactions on Information Theory, Mar 2000 | | | | | |
| AJ | | Hochwald et al ; "Differential Unitary space time modulation" IEEE Trans. Comm. Vol 48, pp 2041-2052 December 2000 | | | | | |
| AK | | Shokrollahi et al; Representation theory for high rate multiple antenna code design" IEEE Trans. Inform Theory, vol. 47, no.6 pp 2335-2367 September 2001 | | | | | |
| AL | | Hughes; "Differential space-time modulation " IEEE trans inform. Theory Vol.46 pp 2567-2578 Nov. 2000 | | | | | |
| AM | | Han et al; "Unitary constellations with large diversity sum and good diversity product" Department of Mathematics Univ; of Notre Dame Oct 2002 | | | | | |
| EXAMINER | | | | DATE CONSIDERED | | | |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformation and not considered. Include copy of this form with next communication to applicant. | | | | | | | |



Sheet 2 of 2

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| Form PTO-1449 (Modified) INFORMATION DISCLOSURE CITATION IN AN APPLICATION <i>(USE SEVERAL SHEETS IF NECESSARY)</i> | | | | Atty. Docket No. 27/243 | | Application No. 10/518,766 | |
| | | | | Applicant: AVERBUCH ET AL | | | |
| | | | | Filing Date: 21 DEC 2004 | | Group Art Unit: | |
| | | | | | | | |
| | EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
| BA | | | | | | | |
| BB | | | | | | | |
| | | | | | | | |
| | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
| | | | | | | | YES NO |
| BC | | | | | | | |
| OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) | | | | | | | |
| BD | | "The Finite Inner Automorphism Groups Of Division Rings" Shirvani; Math Proc. Camb. Phil. Soc. Vol. 118 pp.207-213, 1995 | | | | | |
| BE | | "On Limits Of Wireless Communications In A Fading Enviroment When Using Multiple Antennas" Foschini et al; Wireless Personal Communications 6: 311-335 1998 | | | | | |
| BF | | Amitsur; "Finite Subgroups of Division Rings" Trans, Amer. Math. Soc. (1955) 361-386 . | | | | | |
| BG | | | | | | | |
| BH | | | | | | | |
| EXAMINER | | | | DATE CONSIDERED | | | |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformation and not considered. Include copy of this form with next communication to applicant. | | | | | | | |